

WHAT IS CLAIMED IS:

1. A remote preference unit for influencing visited network selection by roaming mobile units, the preference unit comprising:
 - a detection unit for detection of roaming activity by mobile units
 - a database indicative of preferred networks for selection by roaming units, and
 - an output unit, associated with said detection probe and said database to output indications to influence network selection by said detected roaming mobile units.
2. The remote preference unit of claim 1, further comprising logic for assigning different preference information under different conditions.
3. The remote preference unit of claim 2, wherein said conditions comprise time, such that different network selection preferences are sent out based on different times.
4. The remote preference unit of claim 3, wherein a time used to set said preferences is local time at a roaming location.
5. The remote preference unit of claim 2, wherein said conditions comprise one of profile settings and abilities of an individual roaming handset.
6. The remote preference unit of claim 5, wherein said conditions are based on a segment of users to which a current handset belongs, such that said preference information is applied differently to different segments.
7. The remote preference unit of claim 2, wherein said conditions comprise the proportions of roaming users currently connected to different available networks in a given roaming region.
8. The remote preference unit of claim 1, wherein said output signal is a failure to reply to a roaming request in a given time, thereby inducing a time-out to said request.

9. The remote preference unit of claim 1, wherein said output indications are rejection signals to roaming request attempts to respective non-preferred roaming networks.

10. The remote preference unit of claim 9, wherein said roaming rejection signals are sent to location infrastructure of respective non-preferred roaming networks, thereby to cause a roaming request attempt to fail at said non-preferred network and force said mobile units to re-attempt roaming requests, thereby at said reattempting to select a preferred roaming network.

11. The remote preference unit of claim 1, wherein said indications comprise an up-to-date version of at least a part of said database for downloading to said detected mobile units, said mobile units thereby being enabled to consult said up to date version for network selection.

12. The remote preference unit of claim 11, comprising a connection to a SIM card infrastructure, through which to download said up to date version to said mobile units.

13. The remote preference unit of claim 12, wherein said connection is operable to download said up to date version using binary SMS.

14. The remote preference unit of claim 12, wherein said connection is further operable to download an applet to said mobile unit to govern use of said up to date version.

15. The remote preference unit of claim 14, wherein said applet contains dialing services customized for a current roaming region.

16. The remote preference unit of claim 15, wherein said dialing services customized for a current roaming region are any one of a group comprising intelligent call completion, home short code, world wide number, and iVPN.

17. The remote preference unit of claim 11, wherein said output unit further comprises an association with said probe for rejecting a roaming request from a respective non-preferred roaming network, in association with said download of said up to date version.

18. Mobile infrastructure comprising:

- a connection control path for passing control data for individual mobile telephony connections,
- a card control path for passing binary data for updating control information at a programmable card at an individual mobile unit, and
- an operable connection between said connection control route and said card control route to enable data obtained from said connection control route to be used to activate an update operation via said card control route.

19. The mobile infrastructure of claim 18, wherein said connection control route is a roaming control route for controlling roaming telephony connections.

20. The mobile infrastructure of claim 19, wherein said connection control route is an SS7-based control route.

21. The mobile infrastructure of claim 19, wherein said connection control route is a MAP-based control route.

22. The mobile infrastructure of claim 18, wherein said update operation is an operation to provide a given mobile unit with up-to-date information regarding a current roaming environment.

23. The mobile infrastructure of claim 22, wherein said up-to-date information comprises updating one of a group of SIM card network location features comprising a preferred network (PLMSEL) file, a most recently used field (RPLMN field) of an LOCI file and a forbidden network (FPLMN) file.

24. The mobile infrastructure of claim 18, wherein said data obtained from said connection control route is an indication of a given mobile unit roaming in a given roaming environment.

25. The mobile infrastructure of claim 22, wherein said current roaming environment comprises a plurality of available networks, and said up-to-date information comprises preference information for selecting between said available networks.

26. The mobile infrastructure of claim 25, further comprising logic for assigning different preference information under different conditions.

27. The mobile infrastructure of claim 26, wherein said conditions comprise time, such that different network selection preferences are sent out based on different times.

28. The mobile infrastructure of claim 27, wherein a time used to set said preferences is local time at a roaming location.

29. The mobile infrastructure of claim 26, wherein said conditions comprise one of profile settings and abilities of an individual roaming handset.

30. The mobile infrastructure of claim 29, wherein said conditions are based on a segment of users to which a current handset belongs, such that said preference information is applied differently to different segments.

31. The mobile infrastructure of claim 26, wherein said conditions comprise the proportions of roaming users currently connected to different available networks in a given roaming region.

32. The mobile infrastructure of claim 18, further comprising an output unit for sending a roaming reject signal to a non-preferred network through which a roaming mobile telephony connection is being attempted.

33. The mobile infrastructure of claim 18, further comprising a preference unit for rejecting a request to use a non-preferred network by preventing reply signaling and thereby causing said request to time out.

34. An updating method for updating programmable settings on a mobile telephone unit, comprising:

probing connection control signaling between a visited and a home network of said mobile telephone unit, and

responding to said control signaling by outputting update information to said mobile telephone unit to update programmable settings thereof.

35. The updating method of claim 34, wherein said connection control signaling comprises data regarding roaming activity of said mobile unit in any one of a plurality of roaming environments, each roaming environment comprising a plurality of available roaming networks to which said mobile unit is able to make a roaming connection, and wherein said update information comprises updated preference data ranking said available roaming networks in an order of selection preference.

36. The updating method of claim 35, comprising making said update information available via at least one of a group comprising binary SMS and GPRS.

37. The updating method of claim 36, comprising making said update information available to a programmable telephone setting card of said mobile unit.

38. The updating method of claim 37, wherein said programmable phone setting card is a subscriber identity module (SIM).

39. A roaming network selection influencing method for influencing mobile units regarding network selection when connecting in a roaming environment having a plurality of available networks, the method comprising:

probing roaming connection control signaling between said mobile telephone unit and mobile network infrastructure to obtain an indication that a given unit is attempting a roaming connection from a given roaming environment,

checking a database giving a preference order amongst available networks in said given roaming environment, and

if said roaming control signaling indicates that said mobile telephone unit is making a current roaming request via a non-preferred network then controlling said connection control signaling to refuse a roaming request to said non-preferred network, thereby to cause said mobile unit to find another network within said
5 environment to reattempt a roaming request.